

Jordan

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/511,096
Source: PCT
Date Processed by STIC: 06/15/2005

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PCT

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/511,096

DATE: 06/15/2005
TIME: 16:10:17

Input Set : A:\US10511096-seq list.txt
Output Set: N:\CRF4\06152005\J511096.raw

3 <110> APPLICANT: Evotec NeuroSciences GmbH
 5 <120> TITLE OF INVENTION: Diagnostic and therapeutic use of a Golgi protein for
 6 neurodegenerative diseases
 8 <130> FILE REFERENCE: P67813US1
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/511,096
C--> 11 <141> CURRENT FILING DATE: 2004-10-14
 13 <160> NUMBER OF SEQ ID NOS: 27
 15 <170> SOFTWARE: PatentIn Ver. 2.1
 17 <210> SEQ ID NO: 1
 18 <211> LENGTH: 36
 19 <212> TYPE: DNA
 20 <213> ORGANISM: Artificial Sequence
 22 <220> FEATURE:
 23 <223> OTHER INFORMATION: Description of Artificial Sequence: golgin-245
 24 cDNA fragment
 26 <400> SEQUENCE: 1
 27 agttaagttt ctttgtaaaa cactgatttt ttctcc 36
 30 <210> SEQ ID NO: 2
 31 <211> LENGTH: 2228
 32 <212> TYPE: PRT
 33 <213> ORGANISM: Homo sapiens
 35 <400> SEQUENCE: 2
 36 Met Phe Lys Lys Leu Lys Gln Lys Ile Ser Glu Glu Gln Gln Gln Leu
 37 1 5 10 15
 39 Gln Gln Ala Leu Ala Pro Ala Gln Ala Ser Ser Asn Ser Ser Thr Pro
 40 20 25 30
 42 Thr Arg Met Arg Ser Arg Thr Ser Ser Phe Thr Glu Gln Leu Asp Glu
 43 35 40 45
 45 Gly Thr Pro Asn Arg Glu Ser Gly Asp Thr Gln Ser Phe Ala Gln Lys
 46 50 55 60
 48 Leu Gln Leu Arg Val Pro Ser Val Glu Ser Leu Phe Arg Ser Pro Ile
 49 65 70 75 80
 51 Lys Glu Ser Leu Phe Arg Ser Ser Ser Lys Glu Ser Leu Val Arg Thr
 52 85 90 95
 54 Ser Ser Arg Glu Ser Leu Asn Arg Leu Asp Leu Asp Ser Ser Thr Ala
 55 100 105 110
 57 Ser Phe Asp Pro Pro Ser Asp Met Asp Ser Glu Ala Glu Asp Leu Val
 58 115 120 125
 60 Gly Asn Ser Asp Ser Leu Asn Lys Glu Gln Leu Ile Gln Arg Leu Arg
 61 130 135 140
 63 Arg Met Glu Arg Ser Leu Ser Ser Tyr Arg Gly Lys Tyr Ser Glu Leu
 64 145 150 155 160
 66 Val Thr Ala Tyr Gln Met Leu Gln Arg Glu Lys Lys Leu Gln Gly

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| | | | |
|-----|---|-------------------------|-----|
| 67 | 165 | 170 | 175 |
| 69 | Ile Leu Ser Gln Ser Gln Asp Lys Ser | Leu Arg Arg Ile Ala Glu | Leu |
| 70 | 180 | 185 | 190 |
| 72 | Arg Glu Glu Leu Gln Met Asp Gln Gln Ala Lys Lys His | Leu Gln Glu | |
| 73 | 195 | 200 | 205 |
| 75 | Glu Phe Asp Ala Ser Leu Glu Glu Lys Asp Gln Tyr Ile Ser Val Leu | | |
| 76 | 210 | 215 | 220 |
| 78 | Gln Thr Gln Val Ser Leu Leu Lys Gln Arg Leu Arg Asn Gly Pro Met | | |
| 79 | 225 | 230 | 235 |
| 81 | 240 | | |
| 82 | Asn Val Asp Val Leu Lys Pro Leu Pro Gln Leu Glu Pro Gln Ala Glu | | |
| 84 | 245 | 250 | 255 |
| 85 | Val Phe Thr Lys Glu Glu Asn Pro Glu Ser Asp Gly Glu Pro Val Val | | |
| 87 | 260 | 265 | 270 |
| 88 | Glu Asp Gly Thr Ser Val Lys Thr Leu Glu Thr Leu Gln Gln Arg Val | | |
| 90 | 275 | 280 | 285 |
| 91 | Lys Arg Gln Glu Asn Leu Leu Lys Arg Cys Lys Glu Thr Ile Gln Ser | | |
| 93 | 290 | 295 | 300 |
| 94 | His Lys Glu Gln Cys Thr Leu Leu Thr Ser Glu Lys Glu Ala Leu Gln | | |
| 96 | 305 | 310 | 315 |
| 97 | 320 | | |
| 99 | Glu Gln Leu Asp Glu Arg Leu Gln Glu Leu Glu Lys Ile Lys Asp Leu | | |
| 100 | 325 | 330 | 335 |
| 102 | His Met Ala Glu Lys Thr Lys Leu Ile Thr Gln Leu Arg Asp Ala Lys | | |
| 103 | 100 | 340 | 345 |
| 105 | 350 | | |
| 106 | 345 | 350 | |
| 108 | Asn Leu Ile Glu Gln Leu Glu Gln Asp Lys Gly Met Val Ile Ala Glu | | |
| 109 | 355 | 360 | 365 |
| 111 | 102 | 360 | |
| 112 | 365 | 375 | |
| 114 | Thr Lys Arg Gln Met His Glu Thr Leu Glu Met Lys Glu Glu Glu Ile | | |
| 115 | 375 | 380 | |
| 117 | Ala Gln Leu Arg Ser Arg Ile Lys Gln Met Thr Thr Gln Gly Glu Glu | | |
| 118 | 385 | 390 | 395 |
| 120 | 104 | 390 | 400 |
| 121 | 395 | 405 | |
| 123 | Glu Glu Glu Arg Ile Ser Leu Gln Gln Glu Leu Ser Arg Val Lys Gln | | |
| 124 | 405 | 410 | 415 |
| 126 | 106 | 410 | |
| 127 | 420 | 425 | 430 |
| 129 | Leu Lys Ala Glu Met Asp Glu Gln Ile Lys Thr Ile Glu Lys Thr Ser | | |
| 130 | 425 | 435 | 445 |
| 132 | 108 | 435 | |
| 133 | 440 | 450 | 455 |
| 135 | Val Ala Leu Glu Lys Ser Gln Ser Glu Tyr Leu Lys Ile Ser Gln Glu | | |
| 136 | 455 | 465 | 470 |
| 138 | 110 | 470 | |
| 139 | 485 | 490 | 495 |
| | 500 | 505 | 510 |
| | 515 | 520 | 525 |
| | 530 | 535 | 540 |
| | 545 | 550 | 555 |
| | | | 560 |

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141 Glu Ala Glu Thr Tyr Arg Thr Arg Ile Leu Glu Leu Glu Ser Ser Leu
 142 565 570 575
 144 Glu Lys Ser Leu Gln Glu Asn Lys Asn Gln Ser Lys Asp Leu Ala Val
 145 580 585 590
 147 His Leu Glu Ala Glu Lys Asn Lys His Asn Lys Glu Ile Thr Val Met
 148 595 600 605
 150 Val Glu Lys His Lys Thr Glu Leu Glu Ser Leu Lys His Gln Gln Asp
 151 610 615 620
 153 Ala Leu Trp Thr Glu Lys Leu Gln Val Leu Lys Gln Gln Tyr Gln Thr
 154 625 630 635 640
 156 Glu Met Glu Lys Leu Arg Glu Lys Cys Glu Gln Glu Lys Glu Thr Leu
 157 645 650 655
 159 Leu Lys Asp Lys Glu Ile Ile Phe Gln Ala His Ile Glu Glu Met Asn
 160 660 665 670
 162 Glu Lys Thr Leu Glu Lys Leu Asp Val Lys Gln Thr Glu Leu Glu Ser
 163 675 680 685
 165 Leu Ser Ser Glu Leu Ser Glu Val Leu Lys Ala Arg His Lys Leu Glu
 166 690 695 700
 168 Glu Glu Leu Ser Val Leu Lys Asp Gln Thr Asp Lys Met Lys Gln Glu
 169 705 710 715 720
 171 Leu Glu Ala Lys Met Asp Glu Gln Lys Asn His His Gln Gln Val
 172 725 730 735
 174 Asp Ser Ile Ile Lys Glu His Glu Val Ser Ile Gln Arg Thr Glu Lys
 175 740 745 750
 177 Ala Leu Lys Asp Gln Ile Asn Gln Leu Glu Leu Leu Lys Glu Arg
 178 755 760 765
 180 Asp Lys His Leu Lys Glu His Gln Ala His Val Glu Asn Leu Glu Ala
 181 770 775 780
 183 Asp Ile Lys Arg Ser Glu Gly Glu Leu Gln Gln Ala Ser Ala Lys Leu
 184 785 790 795 800
 186 Asp Val Phe Gln Ser Tyr Gln Ser Ala Thr His Glu Gln Thr Lys Ala
 187 805 810 815
 189 Tyr Glu Glu Gln Leu Ala Gln Leu Gln Gln Lys Leu Leu Asp Leu Glu
 190 820 825 830
 192 Thr Glu Arg Ile Leu Leu Thr Lys Gln Val Ala Glu Val Glu Ala Gln
 193 835 840 845
 195 Lys Lys Asp Val Cys Thr Glu Leu Asp Ala His Lys Ile Gln Val Gln
 196 850 855 860
 198 Asp Leu Met Gln Gln Leu Glu Lys Gln Asn Ser Glu Met Glu Gln Lys
 199 865 870 875 880
 201 Val Lys Ser Leu Thr Gln Val Tyr Glu Ser Lys Leu Glu Asp Gly Asn
 202 885 890 895
 204 Lys Glu Gln Glu Gln Thr Lys Gln Ile Leu Val Glu Lys Glu Asn Met
 205 900 905 910
 207 Ile Leu Gln Met Arg Glu Gly Gln Lys Lys Glu Ile Glu Ile Leu Thr
 208 915 920 925
 210 Gln Lys Leu Ser Ala Lys Glu Asp Ser Ile His Ile Leu Asn Glu Glu
 211 930 935 940
 213 Tyr Glu Thr Lys Phe Lys Asn Gln Glu Lys Lys Met Glu Lys Val Lys

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| | | | | | | | | | | | | | | | | |
|-----|------|-----|-----|-----|------|-----|-----|------|------|-----|-----|------|-----|------|-----|-----|
| 214 | 945 | 950 | 955 | 960 | | | | | | | | | | | | |
| 216 | Gln | Lys | Ala | Lys | Glu | Met | Gln | Glu | Thr | Leu | Lys | Lys | Leu | Leu | Asp | |
| 217 | | | | | 965 | | | | 970 | | | | | 975 | | |
| 219 | Gln | Glu | Ala | Lys | Leu | Lys | Lys | Glu | Leu | Glu | Asn | Thr | Ala | Leu | Glu | Leu |
| 220 | | | | | 980 | | | | 985 | | | | | 990 | | |
| 222 | Ser | Gln | Lys | Glu | Lys | Gln | Phe | Asn | Ala | Lys | Met | Leu | Glu | Met | Ala | Gln |
| 223 | | | | | 995 | | | | 1000 | | | | | 1005 | | |
| 225 | Ala | Asn | Ser | Ala | Gly | Ile | Ser | Asp | Ala | Val | Ser | Arg | Leu | Glu | Thr | Asn |
| 226 | | | | | 1010 | | | 1015 | | | | 1020 | | | | |
| 228 | Gln | Lys | Glu | Gln | Ile | Glu | Ser | Leu | Thr | Glu | Val | His | Arg | Arg | Glu | Leu |
| 229 | 1025 | | | | 1030 | | | | 1035 | | | | | 1040 | | |
| 231 | Asn | Asp | Val | Ile | Ser | Ile | Trp | Glu | Lys | Leu | Asn | Gln | Gln | Ala | Glu | |
| 232 | | | | | 1045 | | | | 1050 | | | | | 1055 | | |
| 234 | Glu | Leu | Gln | Glu | Ile | His | Glu | Ile | Gln | Leu | Gln | Glu | Lys | Glu | Gln | Glu |
| 235 | | | | | 1060 | | | | 1065 | | | | | 1070 | | |
| 237 | Val | Ala | Glu | Leu | Lys | Gln | Lys | Ile | Leu | Leu | Phe | Gly | Cys | Glu | Lys | Glu |
| 238 | | | | | 1075 | | | 1080 | | | | 1085 | | | | |
| 240 | Glu | Met | Asn | Lys | Glu | Ile | Thr | Trp | Leu | Lys | Glu | Glu | Gly | Val | Lys | Gln |
| 241 | | | | | 1090 | | | 1095 | | | | 1100 | | | | |
| 243 | Asp | Thr | Thr | Leu | Asn | Glu | Leu | Gln | Glu | Gln | Leu | Lys | Gln | Lys | Ser | Ala |
| 244 | 1105 | | | | 1110 | | | | 1115 | | | | | 1120 | | |
| 246 | His | Val | Asn | Ser | Leu | Ala | Gln | Asp | Glu | Thr | Lys | Leu | Lys | Ala | His | Leu |
| 247 | | | | | 1125 | | | | 1130 | | | | | 1135 | | |
| 249 | Glu | Lys | Leu | Glu | Val | Asp | Leu | Asn | Lys | Ser | Leu | Lys | Glu | Asn | Thr | Phe |
| 250 | | | | | 1140 | | | | 1145 | | | | | 1150 | | |
| 252 | Leu | Gln | Gln | Leu | Val | Glu | Leu | Lys | Met | Leu | Ala | Glu | Glu | Asp | Lys | |
| 253 | | | | | 1155 | | | 1160 | | | | 1165 | | | | |
| 255 | Arg | Lys | Val | Ser | Glu | Leu | Thr | Ser | Lys | Leu | Lys | Thr | Thr | Asp | Glu | Glu |
| 256 | | | | | 1170 | | | 1175 | | | | 1180 | | | | |
| 258 | Phe | Gln | Ser | Leu | Lys | Ser | Ser | His | Glu | Lys | Ser | Asn | Lys | Ser | Leu | Glu |
| 259 | 1185 | | | | 1190 | | | | 1195 | | | | | 1200 | | |
| 261 | Asp | Lys | Ser | Leu | Glu | Phe | Lys | Lys | Leu | Ser | Glu | Glu | Leu | Ala | Ile | Gln |
| 262 | | | | | 1205 | | | | 1210 | | | | | 1215 | | |
| 264 | Leu | Asp | Ile | Cys | Cys | Lys | Lys | Thr | Glu | Ala | Leu | Leu | Glu | Ala | Lys | Thr |
| 265 | | | | | 1220 | | | | 1225 | | | | | 1230 | | |
| 267 | Asn | Glu | Leu | Ile | Asn | Ile | Ser | Ser | Ser | Lys | Thr | Asn | Ala | Ile | Leu | Ser |
| 268 | | | | | 1235 | | | 1240 | | | | 1245 | | | | |
| 270 | Arg | Ile | Ser | His | Cys | Gln | His | Arg | Thr | Thr | Lys | Val | Lys | Glu | Ala | Leu |
| 271 | | | | | 1250 | | | 1255 | | | | 1260 | | | | |
| 273 | Leu | Ile | Lys | Thr | Cys | Thr | Val | Ser | Glu | Leu | Glu | Ala | Gln | Leu | Arg | Gln |
| 274 | 1265 | | | | 1270 | | | | 1275 | | | | | 1280 | | |
| 276 | Leu | Thr | Glu | Glu | Gln | Asn | Thr | Leu | Asn | Ile | Ser | Phe | Gln | Gln | Ala | Thr |
| 277 | | | | | 1285 | | | | 1290 | | | | | 1295 | | |
| 279 | His | Gln | Leu | Glu | Glu | Lys | Glu | Asn | Gln | Ile | Lys | Ser | Met | Lys | Ala | Asp |
| 280 | | | | | 1300 | | | | 1305 | | | | | 1310 | | |
| 282 | Ile | Glu | Ser | Leu | Val | Thr | Glu | Lys | Glu | Ala | Leu | Gln | Lys | Glu | Gly | Gly |
| 283 | | | | | 1315 | | | 1320 | | | | 1325 | | | | |
| 285 | Asn | Gln | Gln | Gln | Ala | Ala | Ser | Glu | Lys | Glu | Ser | Cys | Ile | Thr | Gln | Leu |
| 286 | | | | | 1330 | | | 1335 | | | | 1340 | | | | |

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288 Lys Lys Glu Leu Ser Glu Asn Ile Asn Ala Val Thr Leu Met Lys Glu
289 1345 1350 1355 1360
291 Glu Leu Lys Glu Lys Lys Val Glu Ile Ser Ser Leu Ser Lys Gln Leu
292 1365 1370 1375
294 Thr Asp Leu Asn Val Gln Leu Gln Asn Ser Ile Ser Leu Ser Glu Lys
295 1380 1385 1390
297 Glu Ala Ala Ile Ser Ser Leu Arg Lys Gln Tyr Asp Glu Glu Lys Cys
298 1395 1400 1405
300 Glu Leu Leu Asp Gln Val Gln Asp Leu Ser Phe Lys Val Asp Thr Leu
301 1410 1415 1420
303 Ser Lys Glu Lys Ile Ser Ala Leu Glu Gln Val Asp Asp Trp Ser Asn
304 1425 1430 1435 1440
306 Lys Phe Ser Glu Trp Lys Lys Ala Gln Ser Arg Phe Thr Gln His
307 1445 1450 1455
309 Gln Asn Thr Val Lys Glu Leu Gln Ile Gln Leu Glu Leu Lys Ser Lys
310 1460 1465 1470
312 Glu Ala Tyr Glu Lys Asp Glu Gln Ile Asn Leu Leu Lys Glu Glu Leu
313 1475 1480 1485
315 Asp Gln Gln Asn Lys Arg Phe Asp Cys Leu Lys Gly Glu Met Glu Asp
316 1490 1495 1500
318 Asp Lys Ser Lys Met Glu Lys Lys Glu Ser Asn Leu Glu Thr Glu Leu
319 1505 1510 1515 1520
321 Lys Ser Gln Thr Ala Arg Ile Met Glu Leu Glu Asp His Ile Thr Gln
322 1525 1530 1535
324 Lys Thr Ile Glu Ile Glu Ser Leu Asn Glu Val Leu Lys Asn Tyr Asn
325 1540 1545 1550
327 Gln Gln Lys Asp Ile Glu His Lys Glu Leu Val Gln Lys Leu Gln His
328 1555 1560 1565
330 Phe Gln Glu Leu Gly Glu Lys Asp Asn Arg Val Lys Glu Ala Glu
331 1570 1575 1580
333 Glu Lys Ile Leu Thr Leu Glu Asn Gln Val Tyr Ser Met Lys Ala Glu
334 1585 1590 1595 1600
336 Leu Glu Thr Lys Lys Glu Leu Glu His Val Asn Leu Ser Val Lys
337 1605 1610 1615
339 Ser Lys Glu Glu Leu Lys Ala Leu Glu Asp Arg Leu Glu Ser Glu
340 1620 1625 1630
342 Ser Ala Ala Lys Leu Ala Glu Leu Lys Arg Lys Ala Glu Gln Lys Ile
343 1635 1640 1645
345 Ala Ala Ile Lys Lys Gln Leu Leu Ser Gln Met Glu Glu Lys Glu Glu
346 1650 1655 1660
348 Gln Tyr Lys Lys Gly Thr Glu Ser His Leu Ser Glu Leu Asn Thr Lys
349 1665 1670 1675 1680
351 Leu Gln Glu Arg Glu Arg Glu Val His Ile Leu Glu Glu Lys Leu Lys
352 1685 1690 1695
354 Ser Val Glu Ser Ser Gln Ser Glu Thr Leu Ile Val Pro Arg Ser Ala
355 1700 1705 1710
357 Lys Asn Val Ala Ala Tyr Thr Glu Gln Glu Ala Asp Ser Gln Gly
358 1715 1720 1725
360 Cys Val Gln Lys Thr Tyr Glu Glu Lys Ile Ser Val Leu Gln Arg Asn

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L:10 M:270 C: Current Application Number differs, Replaced Current Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date